



**UNITED STATES DEPARTMENT OF COMMERCE**  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/412,512    10/05/99    YAMAZAKI

S    0756-2046

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MM91/1003

EXAMINER

BOOTH, R

ART UNIT

PAPER NUMBER

2812

DATE MAILED:

10/03/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/412,512

Applicant(s)

YAMAZAKI, SHUNPEI

Examiner

Richard A. Booth

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-19 and 31-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-19 and 31-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)      4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_      6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Zhang, U.S. Patent 5,236,850.

The rejection is maintained as stated in paper #10 mailed 4-17-01 for the reasons of record.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15, 17-18, 33, 35-36, and 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al., U.S. Patent 5,147,826 in view of Zhang, U.S. Patent 5,236,850.

. The rejection is maintained as stated in paper #10 mailed 4-17-01 for the reasons of record. The examiner takes official notice that using TFTs in LCDs are well known in the art, and using a TFT in any of the devices of claim 36, for example, is also well known in the art. Furthermore, Liu teaches that laser annealing is known to be

used for crystallization (see column 2, lines 21-30), and the examiner takes official notice that it is a process that is routinely performed in the art. In addition, official notice is taken as to the use of an inverted TFT structure being employed. If the official notice is challenged, a reference can easily be used for support.

Claim 16, 19, 37, and 39-40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al., U.S. Patent 5,773,227 in view of Zhang, U.S. Patent 5,236,850.

The rejection is maintained as stated in paper #10 mailed 4-17-01 for the reasons of record. The examiner takes official notice that using TFTs in LCDs are well known in the art, and using a TFT in any of the devices of claim 36, for example, is also well known in the art. With respect to claim 16, the use of silicon-germanium is suggested (see column 7, lines 45-50). Furthermore, various argon/hydrogen sputtering mixtures are taught (see column 3, lines 45-49). Regarding the use of LCD structures, again the examiner takes official notice that the particular configuration of pixel electrodes, EL layers, and cathodes are all prima facie obvious structure.

Claims 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang, U.S. Patent 5,236,850.

Zhang is applied as above. In addition, the examiner takes official notice that using TFTs in LCDs are well known in the art, and using a TFT in any of the devices of claim 36, for example, is also well known in the art.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al., U.S. Patent 5,147,826 in view of Zhang, U.S. Patent 5,236,850 as applied to claims

15, 17-18, 33, 35-36, and 41-44 above, and further in view of Adachi et al., U.S. Patent 5,492,843.

Liu et al. and Zhang are applied as above but lack anticipation of using a catalyst from the group consisting of Ge and Pb.

Adachi et al. discloses introducing a catalyst such as lead (Pb) to lower the crystallization temperature (see column 9, lines 40-45). In view of this disclosure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use lead as a catalyzing agent in the primary reference of Liu et al. because lead has also been shown to be an element which reduces the crystallization temperature.

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al., U.S. Patent 5,773,227 in view of Zhang, U.S. Patent 5,236,850 as applied to claims 16, 19, 37, and 39-40 above, and further in view of Adachi et al., U.S. Patent 5,492,843.

Yamazaki and Zhang are applied as above but lack anticipation of using a catalyst from the group consisting of Ge and Pb.

Adachi et al. discloses introducing a catalyst such as lead (Pb) to lower the crystallization temperature (see column 9, lines 40-45). In view of this disclosure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use lead as a catalyzing agent in the primary reference of Yamazaki et al. because lead has also been shown to be an element which reduces the crystallization temperature.

***Response to Arguments***

Applicant's arguments filed 7-9-01 have been fully considered but they are not persuasive. Applicant argues that sputtering on a base film formed on a plastic film is not shown in Zhang '850. However, what constitutes a "base film" is subject to interpretation. A "base film" can be a multi-layer film or a single film or anything in between. Therefore, this argument is not persuasive.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

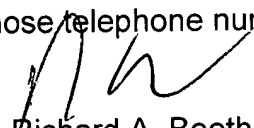
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard A. Booth whose telephone number is 308-3446. The examiner can normally be reached on Monday to Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling can be reached on 308-3325. The fax phone numbers for the organization where this application or proceeding is assigned are 308-7724 for regular communications and 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1782.



Richard A. Booth  
Art Unit 2812